

Notes - When Are They The Same?

Ex 1: A photobooth company (JazzyPhoto) charges a \$350 set-up fee and \$0.50 per photo strip. Their competitor PhotoPop charges \$2 per photo strip.

A. If I think my guests will take 200 pictures, which company should I choose?

$$\begin{array}{l} \text{JP} \\ 350 + 0.50(200) \\ \$450 \end{array}$$

$$\begin{array}{l} \text{PP} \\ 2(200) \\ = \$400 \end{array}$$

PhotoPop
-\$50 cheaper

B. If my guests take 400 pictures, which company should I choose?

$$\begin{array}{l} \text{JP} \\ 350 + 0.50(400) \\ \$550 \end{array}$$

$$\begin{array}{l} \text{PP} \\ 2(400) \\ \$800 \end{array}$$

JazzyPhoto
-\$250 cheaper

C. For what number of pictures, are the two companies the same cost?

$$\text{JP} = \text{PP}$$

$$\begin{array}{r} 350 + 0.5p = 2p \\ -0.5p \quad -0.5p \\ \hline \end{array}$$

$$\begin{array}{r} 350 = 1.5p \\ \hline 1.5 \quad 1.5 \end{array}$$

$$p = 233.\bar{3}$$

233 pictures